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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/815,257	03/22/2001	Yutaka Kamezaki	55521 (70904)	6515

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EXAMINER

NGUYEN, CHANH DUY

ART UNIT	PAPER NUMBER
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2675

DATE MAILED: 06/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/815,257

Applicant(s)

KAMEZAKI ET AL.

Examiner

Chanh Nguyen

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— The MAILING DATE of this communication appears on the cover sheet with the correspondence address —
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 February 2004.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-58 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-58 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The amendment filed on February 09, 2004 has been entered and considered by examiner.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 33 and 43 are rejected under 35 U.S.C. 102(b) as being anticipated by Osamu et al (JP 2585463).

As to claim 43, Osamu discloses a driving method of a display device (1) which output display scanning signal (Figure 6, signals indicated as Y1-Y480) respectively to scanning signal lines (21), and outputting display data signal (SIG) respect to data signal data lines (11) so as to display an image which is in accordance with the display data with respect to pixels (61) which are disposed on a matrix having a partial display function for a non-image area (23, 25) and an image display area (22), horizontal signal lines in a vertical period of the display device (i.e. data lines X1- Xn = 640 lines) being greater than the scanning lines (Y1-Yn = 480 lines) . Osamu teaches the display scanning signals (Y1-Y40 and Y441-Y480) and the display data signals (SIG 81)

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simultaneously outputted with respect to the respect to scanning lines and respective data signal lines which correspond to the non image area (23, 25); see Figure 6.

As to claim 33, this claim differs from claim 43 only in that the limitation a plurality of serially shift register section included in the scanning signal driving section is additionally recited. This limitation is clearly taught by Osamu. That is each of flip-flops (203 and 205) is functioned as a shift register which is serially connected each other; see figure 8.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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4. Claims 24-26 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Osamu et al (JP 2585463) in view of Taku (JP11-184434).

As to claim 24, Osamu discloses a driving method of a display device (1) which output display scanning signal (Figure 6, signals indicated as Y1-Y480) respectively to scanning signal lines (21) , and outputting display data signal (SIG) respect to data signal data lines (11) so as to display an image which is in accordance with the display data with respect to pixels (61) which are disposed on a matrix having a partial display function for a non-image area (23, 25) and an image display area (22). Osamu teaches the step of distinguish a predetermined image display area (22) and a predetermined non-image area (23, 25) (i.e. display signal and non-display signal for distinguishing image display area and non- image area). Osamu teaches the display scanning signals (Y1-Y40 and Y441-Y480) and the display data signals (SIG 81) simultaneously outputted with respect to the scanning lines and respective data signal lines which correspond to the non image area (23, 25); see Figure 6. Osamu does not mention a step of deactivating operation of the scanning signal line driving section until next display being carried. Taku teaches that "after the F2 period, the application of the CLY corresponding to the non-display portion is stopped and the output of the select voltage from the Y driver is prevented" (see paragraph 0043). This read on the limitation "following the simultaneously outputting, deactivating operation of the scanning line driving section" as recited in the claim. Therefore, it would have been obvious to one of ordinary skill in the art at the invention was made to have used the step of deactivating operation of scanning line driving section as taught by Taku to the

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scanning line driving section of Osamu so as to reduce the power consumption (see paragraph 0002 of Taku).

As to claim 25-26, the claimed limitations one horizontal period and two horizontal periods are clearly taught by Osamu as shown in figure 6.

As to claim 42 this claim differs from claim 24 only in that claim 42 is apparatus whereas claim 24 is method. Thus, apparatus claim 42 is analyzed as previously discussed with respect to method claim 24 above.

5. Claims 1-23, 27-32 and 34-41 and 44-58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Saito et al (U.S. Patent No. 6,232,939) in view of Osamu et al (JP 2585463).

As to claim 1, Saito discloses a display device driving circuit which includes a scanning line driving section (e.g., 30, 32-33) for outputting display scanning signal (G1-G769) respectively to scanning signal lines (12) for displaying an image accordance to the display data with respect to pixels (16) which are disposed on the matrix 10). Saito teaches the display device driving circuit including a control means (30, 32-33) for switching from successive output (G1, G2) to simultaneous output (G2, G3), the output of the display scanning signals to the respective scanning signal lines based on a transition instruction signal (e.g., VCLK1) that causes the transition from successive output to simultaneous output, and for controlling the output of the display scanning signal (G1-G769) from the scanning line driving section (30, 32-33) to the respective scanning lines (12) based on the transition instruction signal (VCLK1); see Figure 13. In same field of endeavor, Osamu teaches a control section (201) including

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a set section (Y1-Y40) in which is set each each of an image display area (22) and one or more non-image areas (23, 25) and which control section (201) outputs an a transition instruction signal (e.g., SET signal) for each of one or more non-image areas (23, 25); see Figure 7. Osamu further teaches switching from successive output (Y41-Y440) to simultaneous output (Y441-480) so that the display scanning signals are outputting simultaneously with respect to all scanning lines (Y441-Y480 and Y1-Y40) until next successive output is started by an instruction signal (SET signal) for successively outputting the display scanning signals; see Figures 7-8.

The claim is so broad that it even can read on the Osamu reference alone. That is the reference of Osamu can be interpreted as 102 rejection as broad claim.

As to claim 9, this claim differs from claim 1 only in that the limitation input means is additionally recited. Saito clearly teaches an input means (e.g., 30, 32-33) for receiving a transition instruction signal (e. g., VCLK1) as recited in the claim.

As to claim 17, note the discussion of Saito above, claim 17 differs from claim 1 only in the limitation a non-image area and an image display area is additionally recited. Thus, Saito discloses the driving method of a display device as recited in claim 17 with exception of describing the non-image area and the image display area. In same field of endeavor, Osamu teaches an a non-image area (23 and 25) and an image display area (24) as previously discussed with respect o claim 17 above. Therefore, it would have been obvious to one of ordinary skill in the art at the invention was made to have used the non-image area and the image display area as taught by Osamu to the display

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device of Saito so as to prevent the malfunction of liquid crystal by impressing a certain voltage of a non-display signal; see objection of the invention of Osamu.

As to claim 27, this claim differs from claim 17 only in that claim 17 is method claim whereas claim 27 is apparatus. Thus, apparatus claim 27 is analyzed as previously discussed with respect to method claim 17 above.

As to claims 44 and 54, these claims are met by Saito and Osamu as previously discussed with respect to claim 1 above. That is Saito clearly teaches switching from successive output mode to the simultaneous output mode. The limitation "switching" even can read on the reference of Osamu which uses start signal (ST) for performing successive output mode and set signal (SET) for performing simultaneous output mode. Osamu further teaches image display area and non-image display area which Saito does not disclose.

As to dependent claims 2-8, 10-16, 18-23, 28-32 and 34-39, 40-41, 45-53 and 55-58, these dependent claims are met by Saito and Osamu as previously discussed with respect to independent claims 1, 9, 17, 24, 27 and 33 above. For example, Osamu clearly teaches level shifter (209), a plurality of logic elements (AND gate 207) and shift registers (203) as recited in 48-50 and 58-60. Osamu also teaches a first pulse signal and second pulse signal (i.e. SET signal and START signal) as recited in claims 46 and 55.

Response to Arguments

6. Applicant's arguments filed February 09, 2004 have been fully considered but they are not persuasive.

Applicant states that claims 1 and 9 were amended to more clearly indicate there can be one or more non-image areas. Osamu clearly teaches at least one non-image area (25) which is met the claimed limitation. Applicant also states that claims 27 and 42 were amended to includes a means for distinguish the display and non-display areas based on the transitional signal. However, Osamu clearly teaches the use of SET signal and START signal to or distinguish the display and non-display areas.

Inquiries

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chanh Nguyen whose telephone number is (703) 308-6603.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9306

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Hand-delivered responses should be brought to Crystal Park II, 2121
Crystal Drive, Arlington, VA, Sixth Floor (Receptionist)

Any inquiry of a general nature or relating to the status of this application or
proceeding should be directed to the Technology Center 2600 Customer Service Office
whose telephone number is (703) 306-0377.

CM
C. Nguyen
May 30, 2004


CHANH NGUYEN
PRIMARY EXAMINER